

UNITED STATES PATENT AND TRADEMARK OFFICE

m

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,568	09/10/2003	Zheng Chen	MS1-1524US	4683
22801 75 LEE & HAYES	590 03/30/2007 PLIC		EXAMINER	
421 W RIVERSIDE AVENUE SUITE 500			RUTLEDGE, AMELIA L	
SPOKANE, WA	. 99201	•	ART UNIT	PAPER NUMBER
			2176	
SHORTENED STATUTORY	PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE	
3 MON	THS	03/30/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/30/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

lhptoms@leehayes.com

		Application No.	Applicant(s)	:			
Office Action Summary		10/659,568	CHEN ET AL.				
		Examiner	Art Unit				
		Amelia Rutledge	2176	:			
Period fo	The MAILING DATE of this communication Reply	on appears on the cover sheet	with the correspondence address	,			
WHIC - Exte after - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR FOR HEVER IS LONGER, FROM THE MAILLI nsions of time may be available under the provisions of 37 (SIX (6) MONTHS from the mailing date of this communicat period for reply is specified above, the maximum statutory re to reply within the set or extended period for reply will, by reply received by the Office later than three months after the patent term adjustment. See 37 CFR 1.704(b).	NG DATE OF THIS COMMUN CFR 1.136(a). In no event, however, may ion. period will apply and will expire SIX (6) MG y statute, cause the application to become	IICATION. a reply be timely filed DNTHS from the mailing date of this communicat ABANDONED (35 U.S.C. § 133).	;			
Status	•						
1)⊠	Responsive to communication(s) filed on	16 January 2007.					
	<u> </u>	This action is non-final.					
3) 🗌							
	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.						
Disposit	ion of Claims			·			
4) 🖂	4)⊠ Claim(s) <u>1-4,6-14 and 16-32</u> is/are pending in the application.						
•	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)	5) Claim(s) is/are allowed.						
6)⊠	6)⊠ Claim(s) 1-4,6-14 and 16-32 is/are rejected.						
7)	7) Claim(s) is/are objected to.						
8)□	Claim(s) are subject to restriction	and/or election requirement.					
Applicat	ion Papers						
9)□	The specification is objected to by the Ex	aminer.					
, , , —	10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
	Replacement drawing sheet(s) including the	correction is required if the drawir	ng(s) is objected to. See 37 CFR 1.121	1(d).			
11)	The oath or declaration is objected to by	the Examiner. Note the attach	ed Office Action or form PTO-152.				
Priority (under 35 U.S.C. § 119						
12)	Acknowledgment is made of a claim for fo	oreign priority under 35 U.S.C.	\$ 119(a)-(d) or (f)				
,	☐ All b)☐ Some * c)☐ None of:	orolgii priolity under ee e.e.e.	3 (4) (4) (7).				
-,	1. Certified copies of the priority docu	uments have been received.					
	2. Certified copies of the priority documents have been received in Application No						
	3. Copies of the certified copies of the priority documents have been received in this National Stage						
•	application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.							
Attachmen	it(s)			:			
	ce of References Cited (PTO-892)		v Summary (PTO-413)				
	ce of Draftsperson's Patent Drawing Review (PTO-9		o(s)/Mail Date f Informal Patent Application				
	mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	6) Other:	· ····································				

Art Unit: 2176

DETAILED ACTION

- 1. This action is responsive to communications: Amendment, filed 10/06/2006.
- 2. Claims 1-4, 6-14, and 16-32 are pending in the case. Claims 1, 14, and 23 are independent claims.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1, 2, 6-14, 19-28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price et al. (hereinafter "Price"), "Linking By Inking: Trailblazing in a Paper-like Hypertext", *HyperText* 98, Pittsburgh, PA, copyright ACM 1998, p. 30-39, in view of Farrett, U.S. Patent No. 7,107,261 B2, issued September 2006.

Regarding independent claim 1, Price teaches XLibris, a hypertext system using a paper document metaphor, i.e., an electronic document. Price teaches monitoring an electronic document for user annotations and recognizing entry of an annotation into the electronic document (p. 32, Fig. 2; p. 33, Col. 1, par. 2; p. 33, Col. 2, par. 4) because as a reader annotates a document the system performs queries and displays links to related pages (Fig. 3). The queries locate documents related to the annotation using the annotation and context data proximal to the annotation, because

Art Unit: 2176

each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2). Also see p. 35, "Ink Anchors", where annotations are used to contextually link to nearby annotations or relevant annotations.

While Price does not explicitly teach that collecting the context data comprises deriving at least two search terms, comparing the search terms to a history of search terms, and weighting each of the search terms according to whether a particular search term is included in the history, a higher weight being assigned to a search term that is included in the history, Farrett teaches a client side search engine which retains a history record of search terms which is updated and refined, and further assigning a weighted probability category to a keyword that matches the search term keyword (col. 1, I. 40-col. 2, I. 36). Farrett teaches weighting each search term according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms (col. 4, I. 9-col. 5, I. 5; claim 1). Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2). and Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Art Unit: 2176

Regarding dependent claim 2, Price teaches extracting words from text proximal to the annotation (p. 34, Col. 1, par. 2-3).

Regarding dependent claims 6-7, while Price teaches deriving search terms, Price does not explicitly teach comparing the search terms to a history of search terms; and weighting each of the search terms according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms. However, Farrett teaches a client side search engine which retains a history record of search terms which is updated and refined, and further assigning a weighted probability category to a keyword that matches the search term keyword (col. 1, l. 40-col. 2, l. 36). Farrett teaches weighting each search term according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms (col. 4, l. 9-col. 5, l. 5; claim 1). Farrett teaches that a history of search terms can also be applied to a knowledge base, therefore comprising a history of search terms used by all users of a particular group of users, i.e., the users of the knowledge base (col. 5, l. 37-49).

Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2), and Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by

Art Unit: 2176

Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding dependent claim 8, Price teaches searching the electronic document for terms that match or are similar to the annotation (p. 35, "Ink Anchors").

Regarding dependent claim 9, while Price does not explicitly teach searching remote sites for documents containing terms that match or are similar to the annotation, Farrett teaches that knowledge bases may be provided separate from the system, i.e., remotely (col. 3, I. 1-2). It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding dependent claim 10, Price teaches that tapping on a source ink anchor, i.e., annotation, produces a list of clippings that contain matching target ink anchors, or clippings of documents that correspond to multiple annotations made by the

Art Unit: 2176

reader (p. 35, "Ink Anchors", especially Col. 1, par. 7). Price teaches determining keywords from annotations made by the user.

Regarding dependent claim 11, while Price does not explicitly teach that the previous documents are limited to documents accessed within a specified time period, Farrett teaches limiting the previous documents to documents accessed within a specified time period since Farrett teaches saving of the history record, which would allow limiting of the time period (col. 4, l. 38-54). It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, l. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding dependent claim 12, Price teaches that tapping on a source ink anchor, i.e., annotation, produces a list of clippings that contain matching target ink anchors, or clippings of documents that correspond to multiple annotations made by the reader (p. 35, "Ink Anchors", especially Col. 1, par. 7). Price teaches determining keywords from annotations made by the user.

Art Unit: 2176

Regarding dependent claim 13, Price teaches that an annotation comprises a circled phrase (p. 34, par. 2).

Regarding independent claim 14, Price teaches XLibris, a hypertext system using a paper document metaphor, i.e., an electronic document. Price teaches monitoring an electronic document for user annotations and recognizing entry of an annotation into the electronic document (p. 32, Fig. 2; p. 33, Col. 1, par. 2; p. 33, Col. 2, par. 4) because as a reader annotates a document the system performs queries and displays links to related pages (Fig. 3). The queries locate documents related to the annotation using the annotation and context data proximal to the annotation, because each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2). Also see p. 35, "Ink Anchors", where annotations are used to contextually link to nearby annotations or relevant annotations. Price teaches search and extraction modules (p. 35-36, "Implementation").

While Price does not explicitly teach that the history module includes one or more historical keywords that were previously used, and that the extraction module weights keywords according to whether or not the keywords are included in the history module, Farrett teaches a client side search engine which retains a history record of search terms which is updated and refined, and further assigning a weighted probability category to a keyword that matches the search term keyword (col. 1, I. 40-col. 2, I. 36). Farrett teaches weighting each search term according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a

Art Unit: 2176

search term that is included in the history of search terms (col. 4, I. 9-col. 5, I. 5; claim

1). Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2), and Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding dependent claim 19, Price teaches extracting keywords from text near to the annotation (p. 34, Col. 1, par. 2-3).

Regarding dependent claim 20, while Price in view of Farrett does not explicitly teach that the related content located by the information processing module comprises documents on a network that contain one or more of the keywords, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the system to operate to access documents on a network, since searching documents on a network was well known in the art at the time of the invention, as disclosed by Farrett at col. 1, I. 13-15. Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2), and

Art Unit: 2176

Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding dependent claim 21, Price teaches that tapping on a source ink anchor, i.e., annotation, produces a list of clippings that contain matching target ink anchors, or clippings of documents that correspond to multiple annotations made by the reader (p. 35, "Ink Anchors", especially Col. 1, par. 7). Price teaches determining keywords from annotations made by the user.

Regarding dependent claim 22, while Price does not explicitly teach a user interface configured to present keywords to the user and provide for selection of none or one or more of the keywords by the user, Farrett teaches displaying keywords to the user for selection in a user interface (col. 5, l. 1-50). It would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, l. 30-36), thereby

Art Unit: 2176

enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding independent claim 23, Price teaches XLibris, a hypertext system using a paper document metaphor, i.e., an electronic document. Price teaches monitoring an electronic document for user annotations and recognizing entry of an annotation into the electronic document (p. 32, Fig. 2; p. 33, Col. 1, par. 2; p. 33, Col. 2, par. 4) because as a reader annotates a document the system performs queries and displays links to related pages (Fig. 3). The queries locate documents related to the annotation using the annotation and context data proximal to the annotation, because each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2). Also see p. 35, "Ink Anchors", where annotations are used to contextually link to nearby annotations or relevant annotations.

Price teaches that annotations that select a phrase result in weighted queries based on the entire surrounding sentence with the emphasis on the selected words (p. 34, Col. 1, par. 2-4), resulting in a query for a search with words indicated by the annotation and keywords derived from the context, i.e. search terms selected from one or more words indicated by the annotation. While Price does not explicitly teach a keyword history list, Farrett teaches a client side search engine which retains a history record of search terms which is updated and refined, and further assigning a weighted probability category to a keyword that matches the search term keyword (col. 1, I. 40-col. 2, I. 36). Farrett teaches weighting each search term according to whether a

Art Unit: 2176

particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms (col. 4, I. 9-col. 5, I. 5; claim 1).

Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2), and Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Regarding dependent claim 24, Price teaches that an annotation comprises a circled phrase (p. 34, par. 2).

Regarding dependent claim 25, claim 25 is directed toward substantially similar subject matter as claimed in dependent claim 3, and is rejected along the same rationale.

Regarding dependent claim 26, Price teaches locating keywords on the target page, which may be a page of the document (p. 34, par. 1).

Art Unit: 2176

Regarding dependent claim 27, claim 27 is directed toward substantially similar subject matter as claimed in dependent claim 20, and is rejected along the same rationale.

Regarding dependent claim 28, Price teaches that tapping on a source ink anchor, i.e., annotation, produces a list of clippings that contain matching target ink anchors, or clippings of documents that correspond to multiple annotations made by the reader (p. 35, "Ink Anchors", especially Col. 1, par. 7; Fig. 6). Price teaches determining keywords from annotations made by the user.

Regarding dependent claims 30-32, while Price does not explicitly teach weighting and ranking the search terms, where the search terms were previously used by a user or group of users, Farrett teaches a client side search engine which retains a history record of search terms which is updated and refined, and further assigning a weighted probability category to a search term that matches the search term keyword (col. 1, l. 40-col. 2, l. 36). Farrett teaches weighting each search term according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms (col. 4, l. 9-col. 5, l. 5; claim 1). Farrett teaches that a history of search terms can also be applied to a knowledge base, therefore comprising a history of search terms used by all users of a particular group of users, i.e., the users of the knowledge base (col. 5, l. 37-49).

Art Unit: 2176

Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2), and Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

5. Claims 3, 4, 16-18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Price in view of Farrett as applied to claims 1, 2, 6-14, 19-28, and 30-32 above, and further in view of Haveliwala et al. (hereinafter "Haveliwala"), "Evaluating Strategies for Similarity Search on the Web", WWW2002, May 2002, p. 432-442.

Regarding dependent claim 3, while Price in view of Farrett teaches a hypertext application, Price does not explicitly teach locating objects near to an annotation object in a document object model (DOM) associated with the annotation. However, Haveliwala teaches locating text objects near to an anchor object, in an associated DOM of a hypertext document (p. 433, par. 2). Price, Farrett, and Haveliwala are analogous art because all three are directed toward query and relevance searching of documents based on keywords. It would have been obvious to one of

Art Unit: 2176

ordinary skill in the art at the time of the invention to apply Haveliwala to Price in view of Farrett, because Haveliwala presents an efficiency comparison of similarity search algorithms which produce a ranked listing of documents similar to that document (Haveliwala, p. 432, Introduction, par. 1), which would improve the efficiency of the ranked listing of relevant documents in the reading list disclosed by Price (p. 34, Col. 2, par. 2-4) and the weighted history list of Farrett.

Regarding dependent claim 4, while Price in view of Farrett teaches interpreting each annotation as a text selection transformed into a list of word weights. Price in view of Farrett does not explicitly teach defining a first and second distance from the annotation and weighting keywords accordingly. Haveliwala teaches defining a first and second distance from an anchor by setting a bounding window size and selecting the keywords within (p. 435, Sect. 3.1). Haveliwala teaches weighting terms, i.e., keywords, based on their distance from the anchor (p. 437, Sect. 5.2, par. 1) with terms having a greater weight according to the distance from the anchor, as shown in the logarithmic calculation. Haveliwala teaches locating relevant documents related to the anchor utilizing the weighted keywords. Price, Farrett, and Haveliwala are analogous art because all three are directed toward query and relevance searching of documents based on keywords. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Haveliwala to Price in view of Farrett, because Haveliwala presents an efficiency comparison of similarity search algorithms which produce a ranked listing of documents similar to that document (Haveliwala, p.

Art Unit: 2176

432, Introduction, par. 1), which would improve the efficiency of the ranked listing of relevant documents in the reading list disclosed by Price (p. 34, Col. 2, par. 2-4) and the weighted history list of Farrett.

Regarding dependent claim 16, while Price in view of Farrett teaches interpreting each annotation as a text selection transformed into a list of word weights, Price in view of Farrett does not explicitly teach weighting each keyword according to a relative distance that the keyword is from the annotation. Haveliwala teaches defining a relative distance from an anchor by setting a bounding window size and selecting the keywords within (p. 435, Sect. 3.1). Haveliwala teaches weighting terms, i.e., keywords, based on their distance from the anchor (p. 437, Sect. 5.2, par. 1) with terms having a greater weight according to the relative distance from the anchor, as shown in the logarithmic calculation. Haveliwala teaches locating relevant documents related to the anchor utilizing the weighted keywords. Price, Farrett, and Haveliwala are analogous art because all three are directed toward query and relevance searching of documents based on keywords. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Haveliwala to Price in view of Farrett, because Haveliwala presents an efficiency comparison of similarity search algorithms which produce a ranked listing of documents similar to that document (Haveliwala, p. 432, Introduction, par. 1), which would improve the efficiency of the ranked listing of relevant documents in the reading list disclosed by Price (p. 34, Col. 2, par. 2-4) and the weighted history list of Farrett.

Art Unit: 2176

Regarding dependent claims 17 and 18, Price in view of Farrett teaches that the results of the search are re-ranked according to the weighted keywords, and that the search is performed using a query derived from the annotation and the weighted keywords, since Price teaches monitoring an electronic document for user annotations and recognizing entry of an annotation into the electronic document (p. 32, Fig. 2; p. 33, Col. 1, par. 2; p. 33, Col. 2, par. 4) because as a reader annotates a document the system performs queries and displays links to related pages (Fig. 3). The queries locate documents related to the annotation using the annotation and context data proximal to the annotation, because each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2). Farrett teaches weighting each search term according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms (col. 4, I. 9-col. 5, I. 5; claim Price discloses that each annotation is interpreted as a text selection and transformed into a list of word weights (p. 34, Col. 2, par. 5-p. 35, Col. 1, par. 2), and Farrett is directed toward weighted keywords, therefore Price and Farrett are analogous art and it would have been obvious to one of ordinary skill in the art at the time of the invention to have applied the client side search engine with history record disclosed by Farrett to the hypertext ink annotation system taught by Farrett, so that the system would have the ability to learn from prior searches for a user relative to a given knowledge base (Farrett, col. 1, I. 30-36), thereby enhancing the support for reading and browsing in the same medium provided by Price (Price, p. 31, par. 1).

Art Unit: 2176

Page 17

Regarding dependent claim 29, while Price does not explicitly teach deriving keywords from the context data by identifying words that frequently appear with the annotation in other documents accessed by the user. Haveliwala teaches locating text objects near to an anchor object, in an associated DOM of a hypertext document (p. 433, par. 2). Haveliwala teaches weighting terms, i.e., keywords, based on their distance from the anchor (p. 437, Sect. 5.2, par. 1) with terms having a greater weight according to the relative distance from the anchor, as shown in the logarithmic calculation. Haveliwala teaches locating relevant documents related to the anchor utilizing the weighted keywords. Price, Farrett, and Haveliwala are analogous art because all three are directed toward query and relevance searching of documents based on keywords. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Haveliwala to Price in view of Farrett, because Haveliwala presents an efficiency comparison of similarity search algorithms which produce a ranked listing of documents similar to that document (Haveliwala, p. 432, Introduction, par. 1), which would improve the efficiency of the ranked listing of relevant documents in the reading list disclosed by Price (p. 34, Col. 2, par. 2-4) and the weighted history list of Farrett.

Response to Arguments

6. Applicant's arguments filed 01/16/2007 have been fully considered but they are not persuasive.

Art Unit: 2176

In response to applicant's arguments directed to the Farrett reference (Remarks, p. 18-21), the combination of Price and Farrett does teach weighting words, and retaining a history of search terms, because Farrett teaches a client side search engine which retains a history record of search terms which is updated and refined, and further assigning a weighted probability category to a keyword that matches the search term keyword (col. 1, I. 40-col. 2, I. 36). Farrett teaches weighting each search term according to whether a particular search term is included in the history of search terms, a higher weight being assigned to a search term that is included in the history of search terms (col. 4, I. 9-col. 5, I. 5; claim 1).

Further, the portions of Farrett cited in applicant's arguments (Remarks, p. 18-21), appear to disclose that the combination of Price and Farrett does teach weighting words, and retaining a history of search terms.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2176

the advisory action. In no event, however, will the statutory period for reply expire later

Page 19

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amelia Rutledge whose telephone number is 571-272-7508. The examiner can normally be reached on Monday - Friday 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ΑR

Doug Hutton Primary Examiner echnology Center 2100